



**Application Notes for configuring Avaya Aura®
Communication Manager R6.3 and Avaya Aura®
Application Enablement Services R6.3 to interoperate with
Presence Technology Presence Recording R10.0 - Issue 1.0**

Abstract

These Application Notes describe the configuration steps for Presence Technology Presence Recording to successfully interoperate with Avaya Aura® Communication Manager and Avaya Aura® Application Enablement Services. Presence Technology Presence Recording is part of the Presence Technology Presence Suite, a multi-channel contact management suite which handles voice, text chat, email and web contact mechanisms. Presence Technology Presence Recording integrates with Avaya Aura® Communication Manager and Avaya Aura® Application Enablement Services using single step conferencing implemented via DMCC over TSAPI.

Information in these Application Notes has been obtained through DevConnect compliance testing and additional technical discussions. Testing was conducted via the DevConnect Program at the Avaya Solution and Interoperability Test Lab.

1. Introduction

These Application Notes describe the compliance tested configuration using Presence Technology Presence Recording R10 and Avaya Aura® Communication Manager R6.3 with Avaya Aura® Application Enablement Services R6.3 (AES).

Presence Technology Presence Recording is a component of Presence Technology Presence Suite, a multi-channel contact management suite able to handle voice, e-mail and web chat contact mechanisms. Presence Technology Presence Recording uses Avaya Aura® Communication Manager's Single Step Conferencing (SSC) feature via the Device, Media, and Call Control (DMCC) service provided by the Avaya Aura® Application Enablement Services (AES) to capture the audio and call details for recording agent calls. Presence Technology Presence Recording uses the Avaya Aura® Application Enablement Services DMCC service to register a pool of virtual IP softphones that are used as "recorders". Target agents, whose calls are to be recorded, are configured in the Presence Technology Presence Recording administration tool. When a target agent places or receives a call, SSC is used to conference in a "recorder" to capture the audio stream and call details.

2. General Test Approach and Test Results

The interoperability compliance testing evaluated the ability of Presence Recording to carry out call recording in a variety of scenarios using DMCC with AES and Communication Manager.

DevConnect Compliance Testing is conducted jointly by Avaya and DevConnect members. The jointly-defined test plan focuses on exercising APIs and/or standards-based interfaces pertinent to the interoperability of the tested products and their functionalities. DevConnect Compliance Testing is not intended to substitute full product performance or feature testing performed by DevConnect members, nor is it to be construed as an endorsement by Avaya of the suitability or completeness of a DevConnect member's solution.

2.1. Interoperability Compliance Testing

The interoperability compliance test included both feature functionality and serviceability testing. The feature functionality testing focused on placing and recording calls in different call scenarios with good quality audio recordings and accurate call records. The tests included:

- Call Hold
- Drop
- Blind Transfer
- Consultative Transfer
- Blind 3-way Conference
- Supervised Conference
- Bridged Appearances
- Intra switch call
- Inbound trunk call
- Outbound trunk call
- Malicious Call
- Multiple simultaneous calls
- No Answer, Engaged, Unobtainable
- Fax, Answering Machine
- Manual call clear

The serviceability testing focused on verifying the ability of Presence Recording to recover from disconnection and reconnection to the Avaya solution.

2.2. Test Results

All functionality and serviceability test cases were completed successfully.

2.3. Support

Technical support can be obtained for Presence Technology Presence Suite as follows:

- Email: support@presenceco.com
- Website: www.presenceco.com
- Phone: +34 93 10 10 300

3. Reference Configuration

Figure 1 shows the network topology during interoperability testing. Avaya S8800 Server running Communication Manager with an Avaya G430 Media Gateway was used as the hosting PBX. Presence Suite with the Presence Recording component and Presence Agent PC's are connected to the LAN and recording is performed using the Single Step Conference feature of Communication Manager using DMCC provided by AES.

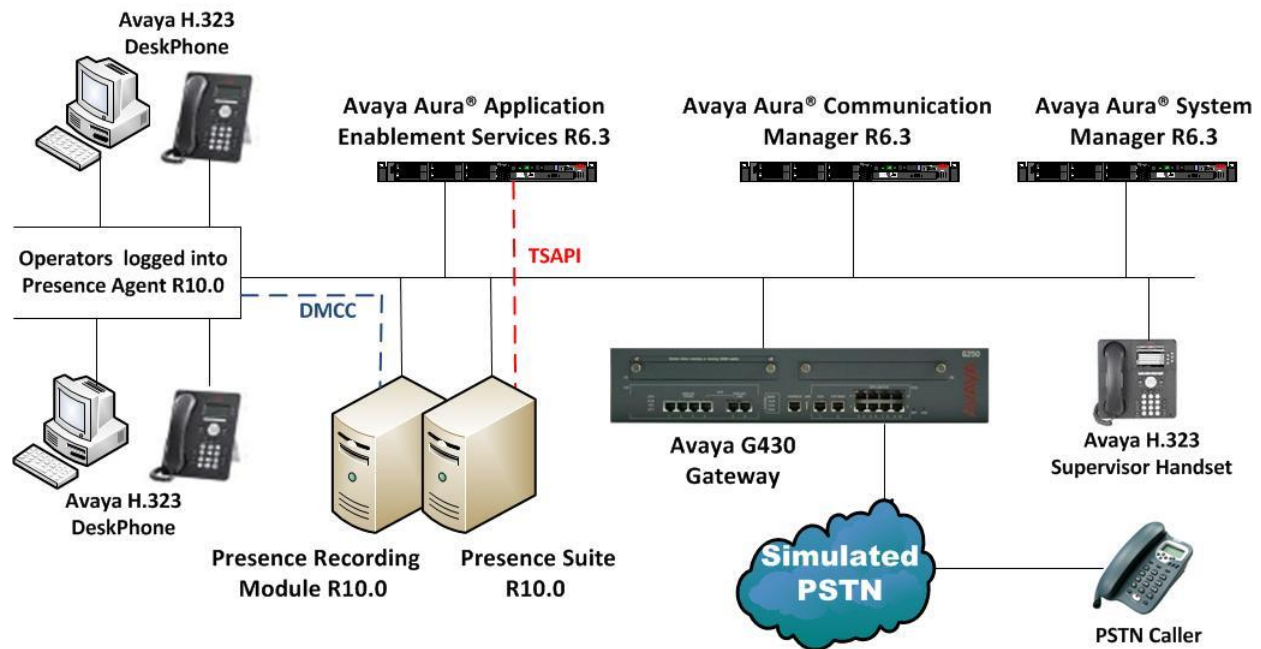


Figure 1: Avaya Aura® Communication Manager with Avaya Aura® Application Enablement Services, and Presence Technology Presence Suite Server with Presence Recording component configuration

4. Equipment and Software Validated

The following equipment and software were used for the sample configuration provided:

Equipment/Software	Release/Version
Avaya Aura® System Manager running on Avaya S8800 Server	System Manager 6.3.0 - FP2 Build No. - 6.3.0.8.5682-6.3.8.1814 Software Update Revision No: 6.3.3.5.1719
Avaya Aura® Communication Manager running on Avaya S8800 Server	R6.3 SP1 R016x.03.0.124.0
Avaya Aura® Application Enablement Services running on Avaya S8800 Server	R6.3 Build No - 6.3.0.0.212-0
Avaya G430 Gateway	R6.3
Avaya 96xx Series Deskphone	96xx H.323 Release 3.1 SP2
Presence Server running Presence Recording on Windows Server 2008 SP2	R10.0
Presence Client running on Windows XP SP3 and Windows Server 2008 SP2	R10.0

5. Configure Avaya Aura® Communication Manager

The information provided in this section describes the configuration of Communication Manager relevant to this solution. For all other provisioning information such as initial installation and configuration, please refer to the product documentation in **Section 10**.

The configuration illustrated in this section was performed using Communication Manager System Administration Terminal (SAT). Please note that this is the setup required to add the Presence Recording only, the setup of the other possible Presence Suite is outside the scope of these Application Notes but can be found in the Application Notes titled *Application Notes for Configuring Presence Technology Presence Suite R10.0 with Avaya Aura® Communication Manager R6.3 and Avaya Aura® Application Enablement Services R6.3*.

5.1. Verify System Features

Use the **display system-parameters customer-options** command to verify that Communication Manager has permissions for features illustrated in these Application Notes. On **Page 3**, ensure that **Computer Telephony Adjunct Links?** is set to **y** and **Answer Supervision by Call Classifier?** is set to **y** as shown below.

display system-parameters customer-options		Page	3 of	11
OPTIONAL FEATURES				
Abbreviated Dialing Enhanced List?	y	Audible Message Waiting?	y	
Access Security Gateway (ASG)?	n	Authorization Codes?	y	
Analog Trunk Incoming Call ID?	y	CAS Branch?	n	
A/D Grp/Sys List Dialing Start at 01?	y	CAS Main?	n	
Answer Supervision by Call Classifier?	y	Change COR by FAC?	n	
ARS?	y	Computer Telephony Adjunct Links?	y	
ARS/AAR Partitioning?	y	Cvg Of Calls Redirected Off-net?	y	
ARS/AAR Dialing without FAC?	y	DCS (Basic)?	y	
ASAI Link Core Capabilities?	n	DCS Call Coverage?	y	
ASAI Link Plus Capabilities?	n	DCS with Rerouting?	y	
Async. Transfer Mode (ATM) PNC?	n	Digital Loss Plan Modification?	y	
Async. Transfer Mode (ATM) Trunking?	n	DS1 MSP?	y	
ATM WAN Spare Processor?	n	DS1 Echo Cancellation?	y	
ATMS?	y			
Attendant Vectoring?	y			

5.2. Note procr IP Address for Avaya Aura® Application Enablement Services Connectivity

Display the procr IP Address by using the command **display node-names ip** and noting the IP address for the **procr** and AES (**aes63vmpg**).

display node-names ip		Page 1 of 2
IP NODE NAMES		
Name	IP Address	
SM100	10.10.40.34	
aes63vmpg	10.10.40.30	
default	0.0.0.0	
g430	10.10.40.15	
procr	10.10.40.31	

5.3. Configure Transport Link for Avaya Aura® Application Enablement Services Connectivity

To administer the transport link to AES use the **change ip-services** command. On **Page 1** add an entry with the following values:

- **Service Type:** should be set to **AESVCS**.
- **Enabled:** set to **y**.
- **Local Node:** set to the node name assigned for the procr in **Section 5.2**
- **Local Port** Retain the default value of **8765**.

change ip-services					Page	1 of	4
IP SERVICES							
Service	Enabled	Local	Local	Remote	Remote		
Type		Node	Port	Node	Port		
AESVCS	y	procr	8765				

Go to **Page 4** of the **ip-services** form and enter the following values:

- **AE Services Server:** Name obtained from the AES server, in this case **aes62vmpg**.
- **Password:** Enter a password to be administered on the AES server.
- **Enabled:** Set to **y**.

Note: The password entered for **Password** field must match the password on the AES server in **Section 6.2**. The **AE Services Server** should match the administered name for the AES server, this is created as part of the AES installation, and can be obtained from the AES server by typing **uname -n** at the Linux command prompt.

change ip-services				Page	4 of	4
AE Services Administration						
Server ID	AE Services Server	Password	Enabled	Status		
1:	aes63vmpg	*****	y	idle		
2:						
3:						

5.4. Configure CTI Link for TSAPI Service

Add a CTI link using the **add cti-link n** command. Enter an available extension number in the **Extension** field. Enter **ADJ-IP** in the **Type** field, and a descriptive name in the **Name** field. Default values may be used in the remaining fields.

add cti-link 1	Page 1 of 3
CTI LINK	
CTI Link: 1	
Extension: 2002	
Type: ADJ-IP	COR: 1
Name: aes63vmpg	

5.5. Configure Recorder/Playback Pool Stations

Presence Recording uses the Single Step Conferencing method to conference “recorders” with the agent calls in order to capture the call audio. Use the command **add station** to configure a station for each of the recording pool stations. On **Page 1** enter a descriptive **Name** and **Security Code**, set the **Port** to **IP**, set the **Type** to **4624** and set **IP SoftPhone** to **y**. Repeat according to the maximum number of calls to be recorded simultaneously. These extensions can also be configured on Presence Recording for the playback of recordings. Configure sufficient stations to accommodate for the maximum number of simultaneous recording playback channels required.

add station 2800	Page 1 of 6	
STATION		
Extension: 2800	Lock Messages? n	BCC: 0
Type: 4624	Security Code: 1234	TN: 1
Port: IP	Coverage Path 1:	COR: 1
Name: Presenceco Recorder 1	Coverage Path 2:	COS: 1
	Hunt-to Station:	
STATION OPTIONS		
Loss Group: 19	Time of Day Lock Table:	
Speakerphone: 2-way	Personalized Ringing Pattern: 1	
Display Language: english	Message Lamp Ext: 1591	
Survivable GK Node Name:	Mute Button Enabled? y	
Survivable COR: internal	Media Complex Ext:	
Survivable Trunk Dest? y	IP SoftPhone? y	
	IP Video Softphone? n	

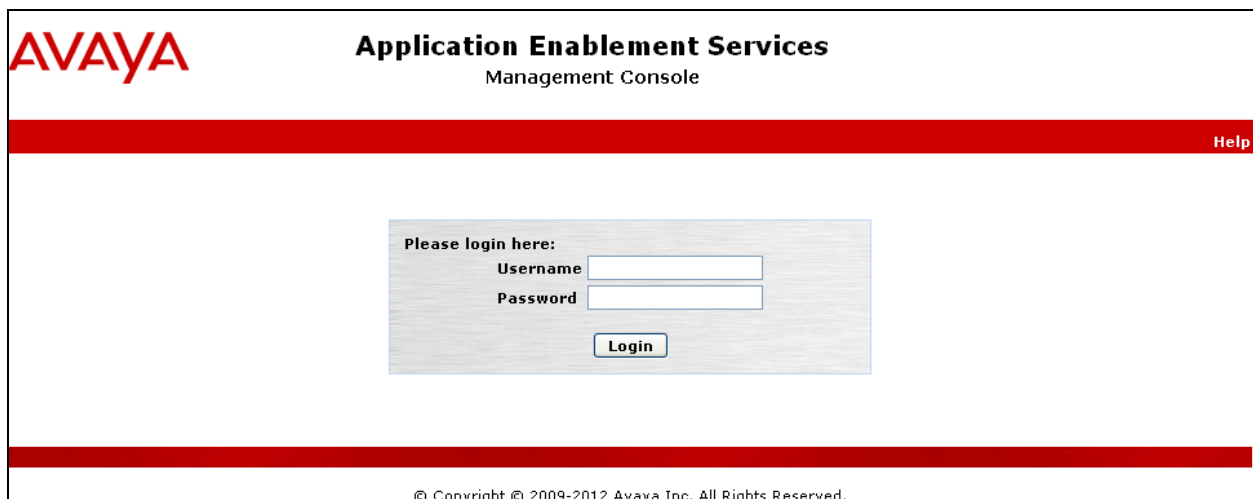
6. Configuration of Avaya Aura® Application Enablement Services

This section provides the procedures for configuring Application Enablement Services. The procedures fall into the following areas:

- Verify Licensing.
- Create Switch Connection.
- Administer TSAPI link.
- Create CTI User.
- Enable CTI Link User.
- Identify Tlinks.

6.1. Verify Licensing

To access the maintenance console, enter **https://<ip-addr>** as the URL in an Internet browser, where <ip-addr> is the active IP address of AES. The login screen is displayed, log in with the appropriate credentials and then select the **Login** button.



The screenshot shows the Avaya Application Enablement Services Management Console login interface. At the top left is the Avaya logo. To its right, the text "Application Enablement Services" and "Management Console" is displayed. A red horizontal bar spans the width of the page, with a "Help" link on the right. In the center, there is a login box with the text "Please login here:". Below this text are two input fields: "Username" and "Password". A "Login" button is positioned below the password field. At the bottom of the page, a red horizontal bar is present, and below it, the copyright notice "© Copyright © 2009-2012 Avaya Inc. All Rights Reserved." is displayed.

The Application Enablement Services Management Console appears displaying the **Welcome to OAM** screen (not shown). Select **AE Services** and verify that the TSAPI Service is licensed by ensuring that **TSAPI Service** is in the list of services and that the **License Mode** is showing **NORMAL MODE**. If not, contact an Avaya support representative to acquire the proper license for your solution.

AVAYA Application Enablement Services Management Console

Welcome: User craft
Last login: Wed Dec 12 10:45:16 2012 from 192.168.10.209
Number of prior failed login attempts: 0
HostName/IP: aes62vmgpg.devconnect.local/10.10.40.10
Server Offer Type: SWONLY
SW Version: r6-2-0-18-0
Server Date and Time: Thu Dec 20 11:51:08 UTC 2012

AE Services Home | Help | Logout

▼ AE Services

- ▶ CVLAN
- ▶ DLG
- ▶ DMCC
- ▶ SMS
- ▶ TSAPI
- ▶ TWS
- ▶ Communication Manager Interface
- ▶ Licensing
- ▶ Maintenance
- ▶ Networking
- ▶ Security
- ▶ Status

AE Services

IMPORTANT: AE Services must be restarted for administrative changes to fully take effect. Changes to the Security Database do not require a restart.

Service	Status	State	License Mode	Cause*
ASAI Link Manager	N/A	Running	N/A	N/A
CVLAN Service	ONLINE	Running	NORMAL MODE	N/A
DLG Service	OFFLINE	Running	N/A	N/A
DMCC Service	ONLINE	Running	NORMAL MODE	N/A
TSAPI Service	ONLINE	Running	NORMAL MODE	N/A
Transport Layer Service	N/A	Running	N/A	N/A

For status on actual services, please use [Status and Control](#)

* -- For more detail, please mouse over the Cause, you'll see the tooltip, or go to help page.

6.2. Create Switch Connection

From the AES Management Console navigate to **Communication Manager Interface** → **Switch Connections** to set up a switch connection. Enter in a name for the Switch Connection to be added and click the **Add Connection** button.

AVAYA Application Enablement Services Management Console

Welcome: User craft
Last login: Thu Nov 14 10:22:12 2013 from 10.10.40.140
Number of prior failed login attempts: 16
HostName/IP: AES63VMGPG
Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE
SW Version: 6.3.0.0.212-0
Server Date and Time: Tue Dec 3 15:33:26 UTC 2013

Communication Manager Interface | Switch Connections Home | Help | Logout

▶ AE Services

▼ Communication Manager Interface

Switch Connections

CM63VMGPG Add Connection

Connection Name	Processor Ethernet	Msg Period	Number of Active Connections

Edit Connection Edit PE/CLAN IPs Edit H.323 Gatekeeper Delete Connection Survivability Hierarchy

In the resulting screen enter the **Switch Password**; the Switch Password must be the same as that entered into Communication Manager AE Services Administration screen via the **change ip-services** command, described in **Section 5.3** Default values may be accepted for the remaining fields. Click **Apply** to save changes.

AVAYA Application Enablement Services Management Console

Welcome: User craft
Last login: Thu Nov 14 10:22:12 2013 from 10.10.40.140
Number of prior failed login attempts: 16
HostName/IP: AES63VMPG
Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE
SW Version: 6.3.0.0.212-0
Server Date and Time: Tue Dec 3 15:35:47 UTC 2013

Communication Manager Interface | Switch Connections Home | Help | Logout

AE Services
Communication Manager Interface
Switch Connections
Dial Plan
Licensing
Maintenance
Networking
Security
Status
User Management
Utilities
Help

Connection Details - CM63vmpg

Switch Password: [Redacted]
Confirm Switch Password: [Redacted]
Msg Period: 30 Minutes (1 - 72)
SSL: ☒
Processor: Ethernet: ☒
Apply Cancel

From the **Switch Connections** screen, select the radio button for the recently added switch connection and select the **Edit CLAN IPs** button (not shown). In the resulting screen, enter the IP address of the procr as shown in **Section 5.2** that will be used for the AES connection and select the **Add Name or IP** button.

AVAYA Application Enablement Services Management Console

Welcome: User craft
Last login: Thu Nov 14 10:22:12 2013 from 10.10.40.140
Number of prior failed login attempts: 16
HostName/IP: AES63VMPG
Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE
SW Version: 6.3.0.0.212-0
Server Date and Time: Tue Dec 03 15:36:31 UTC 2013

Communication Manager Interface | Switch Connections Home | Help | Logout

AE Services
Communication Manager Interface
Switch Connections
Dial Plan
Licensing
Maintenance
Networking
Security
Status
User Management
Utilities
Help

Edit Processor Ethernet IP - CM63vmpg

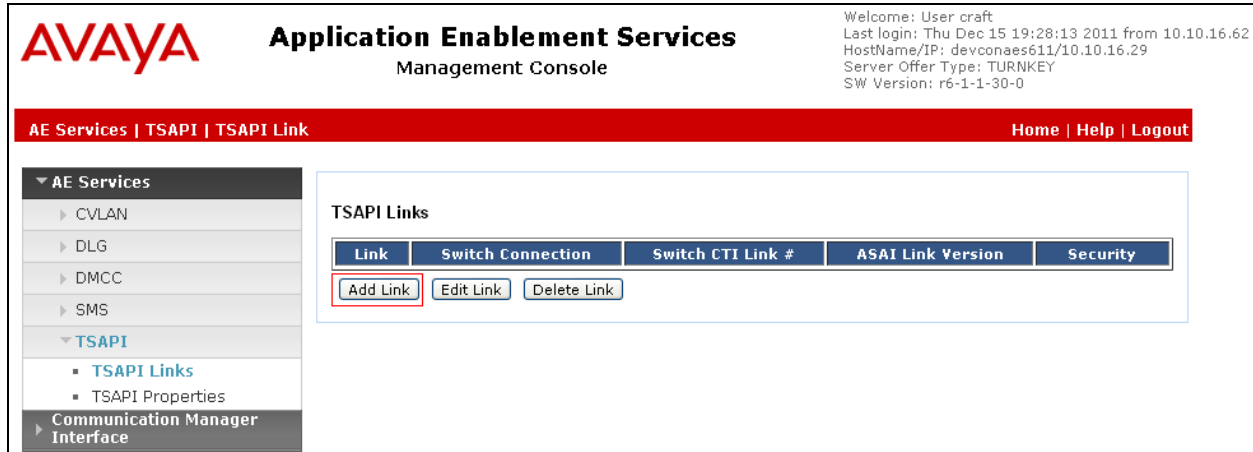
10.10.40.31 Add/Edit Name or IP

Name or IP Address	Status
10.10.40.31	In Use

Back

6.3. Administer TSAPI link

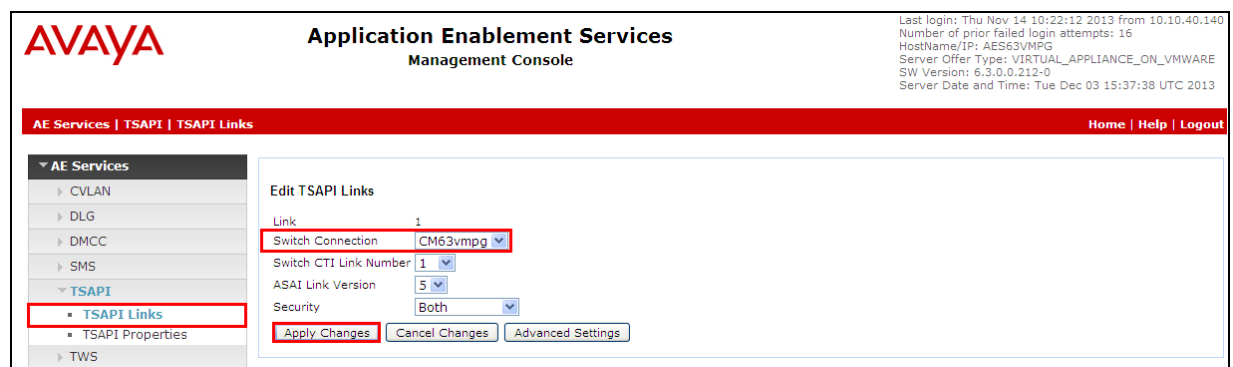
From the Application Enablement Services Management Console, select **AE Services** → **TSAPI** → **TSAPI Links**. Select **Add Link** button as shown in the screen below.



On the **Add TSAPI Links** screen, enter the following values:

- **Link:** Use the drop-down list to select an unused link number.
- **Switch Connection:** Choose the switch connection **CM63VMPG**, which has already been configured in **Section 6.2**, from the drop-down list.
- **Switch CTI Link Number:** Corresponding CTI link number configured in **Section 5.4** which is **1**.
- **ASAI Link Version:** This can be left at the default value of **5**.
- **Security:** This can be left at the default value of **both**.

Once completed, select **Apply Changes**.



Another screen appears for confirmation of the changes. Choose **Apply**.

AVAYA Application Enablement Services Management Console

Welcome: User craft
Last login: Thu Dec 15 19:28:13 2011 from 10.10.16.62
HostName/IP: devconaes611/10.10.16.29
Server Offer Type: TURNKEY
SW Version: r6-1-1-30-0

AE Services | TSAPI | TSAPI Link Home | Help | Logout

▼ AE Services

- ▶ CVLAN
- ▶ DLG
- ▶ DMCC
- ▶ SMS
- ▼ **TSAPI**
 - **TSAPI Links**
 - TSAPI Properties
- ▶ Communication Manager Interface

Apply Changes to Link

Warning! Are you sure you want to apply the changes?
These changes can only take effect when the TSAPI server restarts.
Please use the Maintenance -> Service Controller page to restart the TSAPI server.

When the TSAPI Link is completed, it should resemble the screen below.

AVAYA Application Enablement Services Management Console

Last login: Tue Dec 3 15:32:14 2013 from 10.10.40.225
Number of prior failed login attempts: 17
HostName/IP: AES63VMPG
Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE
SW Version: 6.3.0.0.212-0
Server Date and Time: Tue Dec 03 16:34:53 UTC 2013

AE Services | TSAPI | TSAPI Links Home | Help | Logout

▼ AE Services

- ▶ CVLAN
- ▶ DLG
- ▶ DMCC
- ▶ SMS
- ▼ **TSAPI**
 - **TSAPI Links**
 - TSAPI Properties

TSAPI Links

Link	Switch Connection	Switch CTI Link #	ASAI Link Version	Security
1	CM63vmppg	1	5	Both

The TSAPI Service must be restarted to effect the changes made in this section. From the Management Console menu, navigate to **Maintenance → Service Controller**. On the Service Controller screen, tick the **TSAPI Service** and select **Restart Service**.

AVAYA Application Enablement Services Management Console

Welcome: User craft
Last login: Thu Dec 15 19:28:13 2011 from 10.10.16.62
HostName/IP: devconaes611/10.10.16.29
Server Offer Type: TURNKEY
SW Version: r6-1-1-30-0

Maintenance | Service Controller Home | Help | Logout

▼ AE Services

- ▶ Communication Manager Interface
- ▶ Licensing
- ▼ **Maintenance**
 - ▶ Date Time/NTP Server
 - ▶ Security Database
 - ▶ **Service Controller**
 - ▶ Server Data
- ▶ Networking
- ▶ Security
- ▶ Status
- ▶ User Management

Service Controller

Service	Controller Status
<input type="checkbox"/> ASAI Link Manager	Running
<input type="checkbox"/> DMCC Service	Running
<input type="checkbox"/> CVLAN Service	Running
<input type="checkbox"/> DLG Service	Running
<input type="checkbox"/> Transport Layer Service	Running
<input checked="" type="checkbox"/> TSAPI Service	Running

For status on actual services, please use [Status and Control](#)

6.4. Create Avaya CTI User

A User ID and password needs to be configured for the Presence Suite server to communicate as a TSAPI client with the Application Enablement Services server. Navigate to the **User Management** → **User Admin** screen then choose the **Add User** option (not shown). In the **Add User** screen shown below, enter the following values:

- **User Id** - This will be used by the Presence Suite Server in **Section 7.1**.
- **Common Name** and **Surname** - Descriptive names need to be entered.
- **User Password** and **Confirm Password** - This will be used with the **User Id** in **Section 7.1**.
- **CT User** - Select **Yes** from the drop-down menu.

Complete the process by choosing **Apply** at the bottom of the screen (not shown).

The screenshot shows the Avaya Application Enablement Services Management Console. The top navigation bar includes the Avaya logo, the title 'Application Enablement Services Management Console', and a welcome message for 'User craft'. The left sidebar contains a tree view of the application's structure, with 'User Management' expanded and 'User Admin' selected. The main content area displays the 'Edit User' form. The form includes fields for 'User Id', 'Common Name', 'Surname', 'User Password', 'Confirm Password', 'Admin Note', 'Avaya Role', 'Business Category', 'Car License', 'CM Home', 'Ccs Home', 'Department Number', 'Display Name', 'Employee Number', and 'Employee Type'. A red box highlights the 'User Id', 'Common Name', 'Surname', 'User Password', 'Confirm Password', and 'CT User' fields. The 'CT User' field is a dropdown menu set to 'Yes'.

The next screen will show a message indicating that the user was created successfully (not shown).

6.5. Enable Unrestricted Access for CTI User

Navigate to the **CTI Users** screen by selecting **Security** → **Security Database** → **CTI Users** → **List All Users**. Select the user that was created in **Section 6.4** and select the **Edit** option (not shown). The **Edit CTI User** screen appears. Check the **Unrestricted Access** box and **Apply Changes** at the bottom of the screen.

Security | Security Database | CTI Users | List All Users

Edit CTI User

User Profile:

User ID: ctiuser
Common Name: ctiuser
Worktop Name: NONE

Unrestricted Access ☒

Call and Device Control: Call Origination/Termination and Device Status: None

Call and Device Monitoring: Device Monitoring: None
Calls On A Device Monitoring: None
Call Monitoring: ☐

Routing Control: Allow Routing on Listed Devices: None

Apply Changes **Cancel Changes**

A screen (not shown) appears to confirm applied changes to CTI User, choose **Apply**. This CTI user should now be enabled.

6.6. Identify Tlinks

Navigate to **Security** → **Security Database** → **Tlinks**. Verify the value of the **Tlink Name**. This will be needed to configure Presence Suite in **Section 7.1**.

The screenshot displays the Avaya Application Enablement Services Management Console. The top header features the Avaya logo and the title "Application Enablement Services Management Console". A red navigation bar contains the links "Security | Security Database | Tlinks". On the left, a sidebar menu lists various services, with "Security" expanded to show "Security Database", which in turn has "Tlinks" highlighted with a red box. The main content area, titled "Tlinks", shows a "Tlink Name" field with two radio button options: "AVAYA#CM63VMPG#CSTA#AES63VMPG" (selected) and "AVAYA#CM63VMPG#CSTA-S#AES63VMPG". A "Delete Tlink" button is located below the options.

6.7. Enable DMCC ports

In order to enable DMCC for call recording navigate to **Networking→Ports→DMCC Server Ports**.

- Enable DMCC **Unencrypted Port**
- Enable DMCC **Encrypted Port**
- Enable DMCC **TR/87 Port**

Click on **Apply Changes** at the bottom of the screen (not shown).

Networking | Ports

Ports

CVLAN Ports

			Enabled	Disabled
Unencrypted TCP Port	9999		<input checked="" type="radio"/>	<input type="radio"/>
Encrypted TCP Port	<input type="text" value="9998"/>		<input checked="" type="radio"/>	<input type="radio"/>

DLG Port

TCP Port	
5678	

TSAPI Ports

		Enabled	Disabled
TSAPI Service Port	450	<input checked="" type="radio"/>	<input type="radio"/>
Local TLINK Ports			
TCP Port Min	1024		
TCP Port Max	1039		
Unencrypted TLINK Ports			
TCP Port Min	<input type="text" value="1050"/>		
TCP Port Max	<input type="text" value="1065"/>		
Encrypted TLINK Ports			
TCP Port Min	<input type="text" value="1066"/>		
TCP Port Max	<input type="text" value="1081"/>		

DMCC Server Ports

		Enabled	Disabled
Unencrypted Port	<input type="text" value="4721"/>	<input checked="" type="radio"/>	<input type="radio"/>
Encrypted Port	<input type="text" value="4722"/>	<input checked="" type="radio"/>	<input type="radio"/>
TR/87 Port	<input type="text" value="4723"/>	<input checked="" type="radio"/>	<input type="radio"/>

Once this change is made a restart of the AE Server is required. Navigate to **Maintenance** → **Service Controller**. In the main screen select **Restart AE Server** highlighted.

AVAYA **Application Enablement Services**
Management Console

Maintenance | Service Controller

Left Sidebar:

- ▶ AE Services
- ▶ Communication Manager Interface
- ▶ Licensing
- ▼ **Maintenance**
- ▶ Date Time/NTP Server
- ▶ Security Database
- Service Controller**
- ▶ Server Data
- ▶ Networking
- ▶ Security
- ▶ Status
- ▶ User Management
- ▶ Utilities
- ▶ Help

Service Controller

Service	Controller Status
<input type="checkbox"/> ASAI Link Manager	Running
<input type="checkbox"/> DMCC Service	Running
<input type="checkbox"/> CVLAN Service	Running
<input type="checkbox"/> DLG Service	Running
<input type="checkbox"/> Transport Layer Service	Running
<input type="checkbox"/> TSAPI Service	Running

For status on actual services, please use [Status and Control](#)

Buttons: Start Stop Restart Service **Restart AE Server** Restart Linux Restart Web Server

7. Configure Presence Recording

The Presence Recording can be an additional component of Presence Suite but may also be installed as a stand-alone product. These Application Notes will show the configuration for both instances, in both cases the Presence Recording Server must be configured to connect with AES.

The Presence Suite includes the Presence Server, Presence Mail Interactions Server, Presence Web Interactions Server, Presence Administrator, Presence Supervisor, and Presence Agent. The Presence server was configured and provided by Presence Technology. The setup of Presence Server is outside the scope of these Application Notes but can be found in the Application Notes titled *Application Notes for Configuring Presence Technology Presence Suite R10.0 with Avaya Aura® Communication Manager R6.3 and Avaya Aura® Application Enablement Services R6.3*.

7.1. Configure Telephony, Storage and CTI Parameters

From the Presence server, navigate to **C:\Presence** and double click on **precservercfg.exe** (not shown), the screen below will appear. In the **Ports** section, configure a **Recording Server** port; enter the **IP address** of the Presence Server and the port used for connection. Tick the **Integrated with Presence Server** box if the Presence server has been installed and select **DMCC extensions** from the **Channel type** drop-down box.

Note: If the Presence Server is a part of the installation the Integrated with Presence Server box is ticked and thus the CTI connection already in place for the Presence Server is used by the Presence Recording.

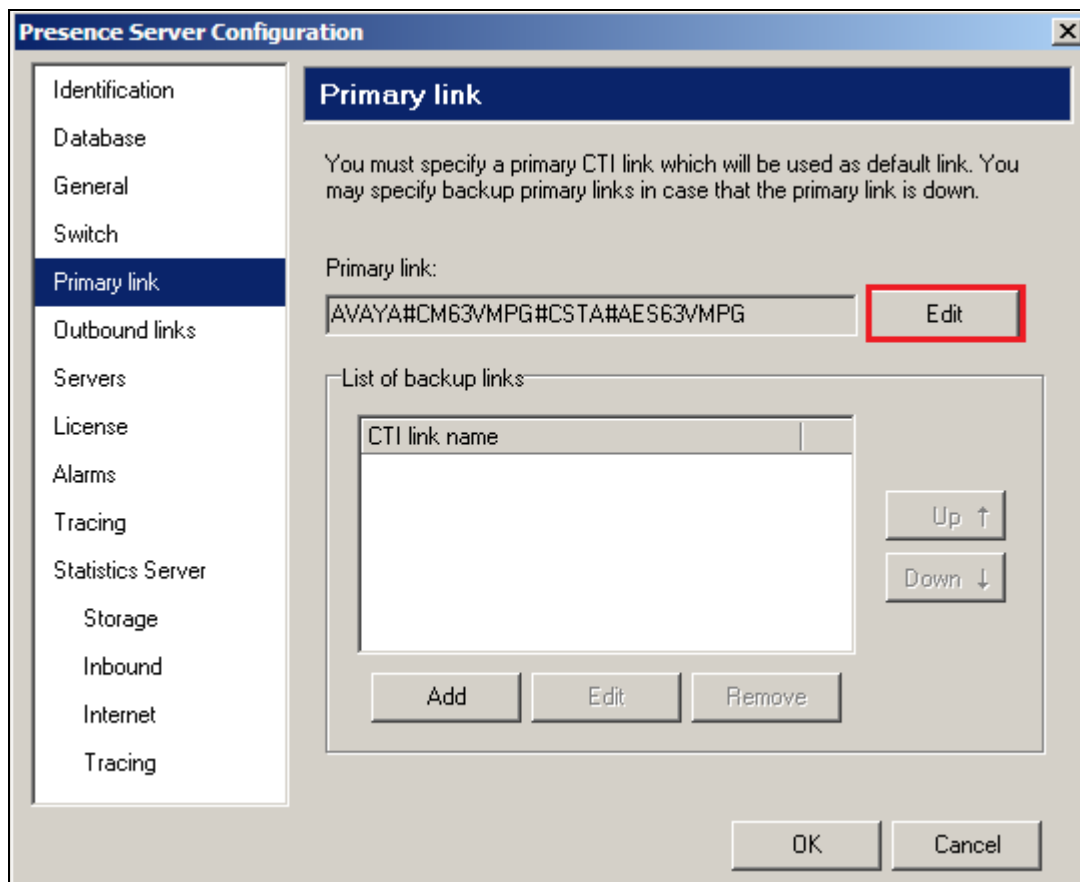
The screenshot shows the 'Presence Recording Server Configuration' dialog box. The 'General' tab is selected in the left sidebar. The 'General' section contains the following settings:

- ☐ Configure Recording Server as slave
- Ports:**
 - Recording Server: 6111
 - Backup Recording Server: 6120
- Presence Server:**
 - ☒ Integrated with Presence Server
 - IP address: 10.10.40.82
 - Port: 6100
- Channel type: DMCC extensions (selected from a dropdown menu)
- Maximum recording duration (in seconds): 0 (with a note: '0' for unlimited duration)
- ☐ Encrypt recording files

The 'OK' button is highlighted with a red box.

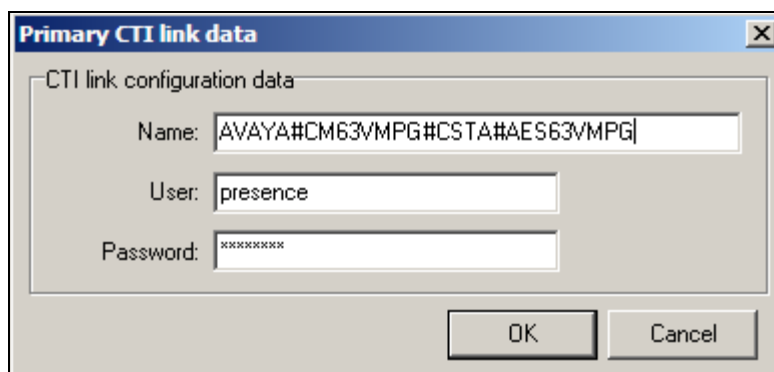
7.1.1. Configure the CTI Connection

If the CTI connection is not in place select the **Primary link** menu on the left side of the screen and choose the **Edit** button to enter a value.



The image shows the 'Presence Server Configuration' dialog box. On the left is a vertical menu with options: Identification, Database, General, Switch, **Primary link** (highlighted), Outbound links, Servers, License, Alarms, Tracing, Statistics Server, Storage, Inbound, Internet, and Tracing. The main area is titled 'Primary link' and contains the text: 'You must specify a primary CTI link which will be used as default link. You may specify backup primary links in case that the primary link is down.' Below this, there is a 'Primary link:' label followed by a text field containing 'AVAYA#CM63VMPG#CSTA#AES63VMPG'. To the right of this field is an 'Edit' button, which is highlighted with a red rectangle. Below the primary link field is a section titled 'List of backup links' containing a table with one header 'CTI link name' and an empty body. To the right of the table are 'Up ↑' and 'Down ↓' buttons. Below the table are 'Add', 'Edit', and 'Remove' buttons. At the bottom right of the dialog are 'OK' and 'Cancel' buttons.

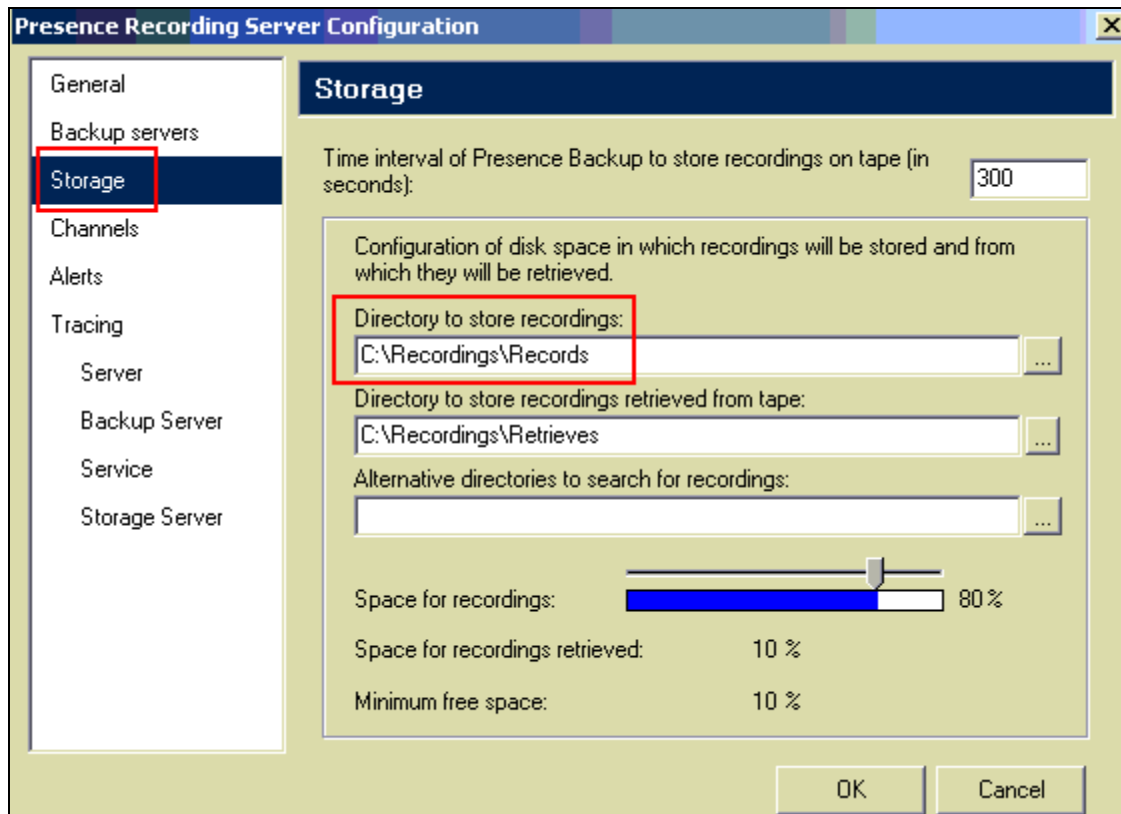
In the resulting pop-up box enter the Tlink name from **Section 6.6** in the **Name** field. For the **User** and **Password** fields enter the user name and password configured on the Application Enablement Services in **Section 6.4**. Click **OK**.



The image shows the 'Primary CTI link data' dialog box. It has a title bar with 'Primary CTI link data' and a close button. The main area is titled 'CTI link configuration data' and contains three text fields: 'Name' with the value 'AVAYA#CM63VMPG#CSTA#AES63VMPG', 'User' with the value 'presence', and 'Password' with masked characters 'XXXXXXXX'. At the bottom right are 'OK' and 'Cancel' buttons.

7.1.2. Configure Storage

Click on **Storage** in the left-hand pane and enter an appropriate directory in the **Directory to store recordings** field.



7.1.3. Configure Telephony

Click on **Channels** in the left-hand pane. In the **DMCC Server** section enter the IP address of the AES server and the AES user configured for the Presence Suite installation, enter the port configured for connectivity to AES (the default is **4721**). In the **DMCC channel configuration** section, click **Add**.

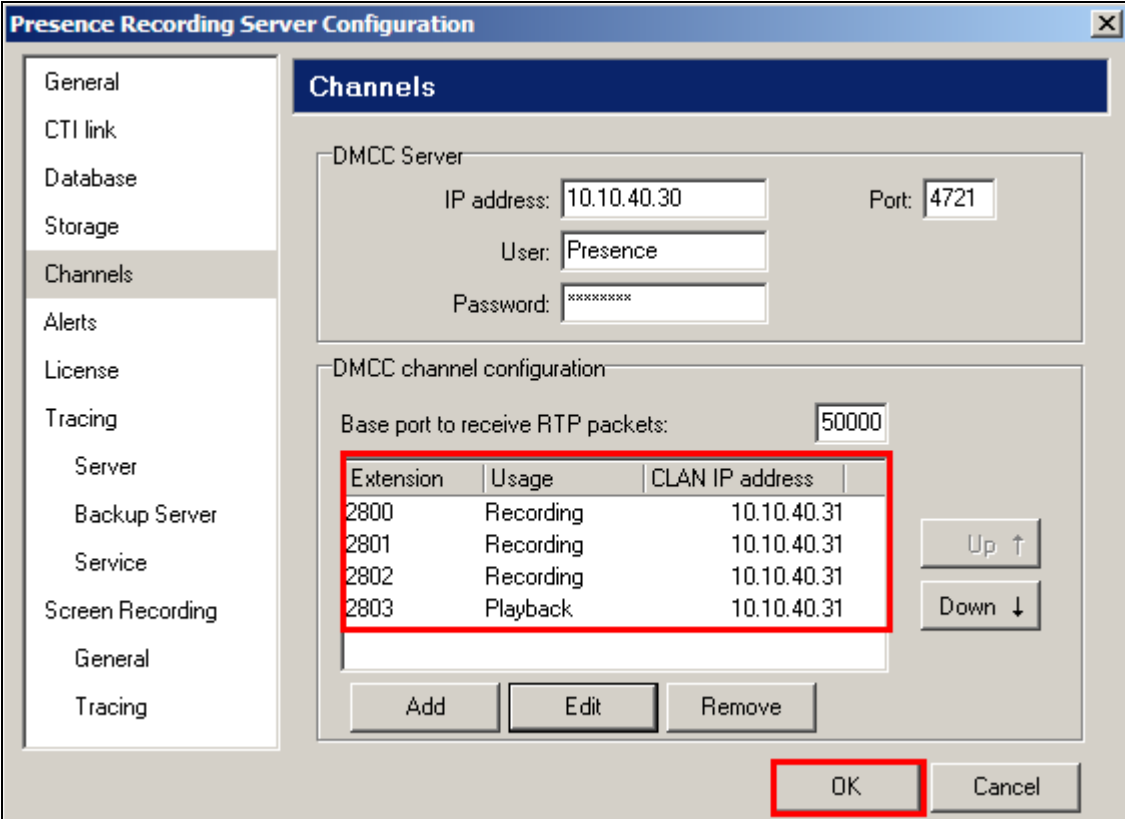
The screenshot shows the 'Presence Recording Server Configuration' dialog box with the 'Channels' tab selected. The left-hand pane has 'Channels' highlighted. The main area is divided into two sections: 'DMCC Server' and 'DMCC channel configuration'. The 'DMCC Server' section contains fields for 'IP address' (10.10.40.30), 'Port' (4721), 'User' (Presence), and 'Password' (masked with asterisks). The 'DMCC channel configuration' section has a 'Base port to receive RTP packets' field (50000) and a table with columns 'Extension', 'Usage', and 'CLAN IP address'. Below the table are 'Up' and 'Down' buttons. At the bottom of the dialog are 'Add', 'Edit', and 'Remove' buttons, with 'Add' highlighted, and 'OK' and 'Cancel' buttons.

Extension	Usage	CLAN IP address
-----------	-------	-----------------

Enter a valid recording channel **Extension** and **Password** as configured in **Section 5.5** Enter the **procr IP address** as outlined in **Section 5.2** and select **Recording** from the **Usage** drop-down box. Click **OK** when done. Repeat as necessary. For playback channels, select **Playback** from the **Usage** drop-down box.

The screenshot displays the 'Presence Recording Server Configuration' window. The 'Channels' tab is active, showing a 'DMCC Server' section with 'IP address: 10.10.40.30' and 'Port: 4721'. A 'Channel' sub-dialog is open, showing 'Channel information' with the following fields: 'Extension: 2800', 'Password: xxxx', 'Usage: Recording' (selected from a dropdown), and 'CLAN IP address: 10.10.40.31'. The sub-dialog has 'OK', 'Cancel', and 'Apply' buttons. In the background, a list of IP addresses (10.10.40.31) is visible with 'Up' and 'Down' arrows. The main window has a sidebar with 'General', 'CTI link', 'Database', 'Storage', 'Char', 'Alert', 'Licen', 'Trac', 'S', 'B', 'S', 'Scre', 'General', and 'Tracing'.

The screen shown below will appear, displaying all recording and playback channels, click **OK** when done.



The image shows a software window titled "Presence Recording Server Configuration" with a "Channels" tab selected. The left sidebar lists various configuration categories, with "Channels" highlighted. The main area is divided into two sections: "DMCC Server" and "DMCC channel configuration".

DMCC Server

IP address: 10.10.40.30 Port: 4721

User: Presence

Password: *****

DMCC channel configuration

Base port to receive RTP packets: 50000

Extension	Usage	CLAN IP address
2800	Recording	10.10.40.31
2801	Recording	10.10.40.31
2802	Recording	10.10.40.31
2803	Playback	10.10.40.31

Buttons: Add, Edit, Remove, Up ↑, Down ↓, OK, Cancel

7.2. Configure Recording Plan

Recording plans must be configured according to the call recordings required. Using the Presence Supervisor application, click on **Recordings → Plans → New** (not shown). In the displayed **Plan Inbound service recording plan** window, assign an identifying **Name** and set the **Percentage to record** as required, in this case **100%**. Configure the **Start** and **End** parameters as appropriate.

The screenshot shows the 'Plan Inbound service recording plan' window with the 'General' tab selected. The left-hand pane shows 'General', 'Services', and 'Groups'. The main area contains the following fields and controls:

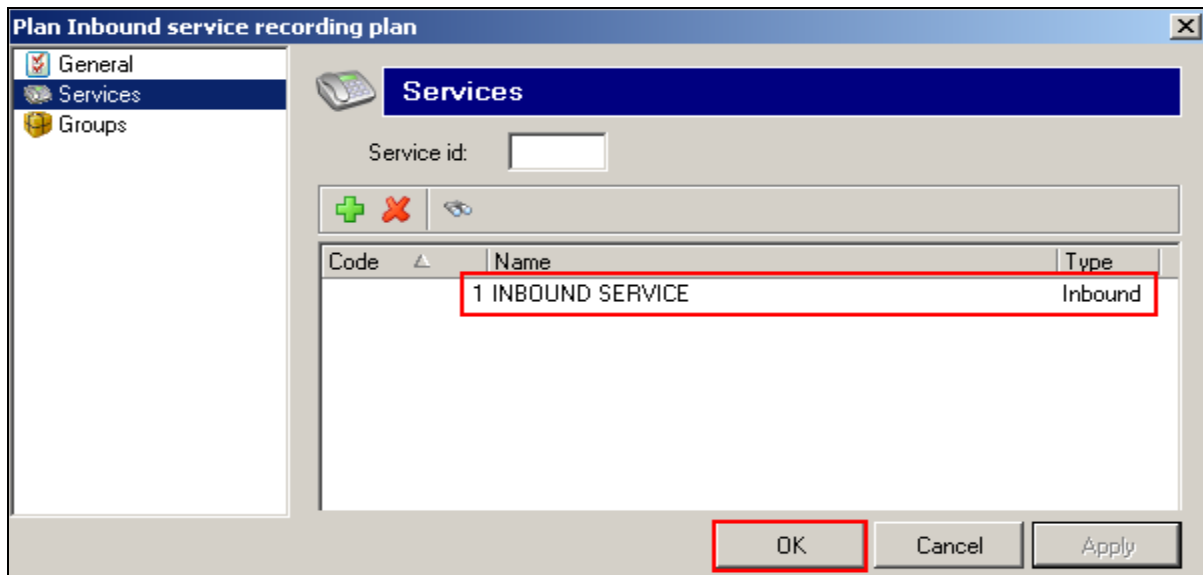
- Name:** Inbound service recording plan
- Resource profile:** General
- Percentage to record:** 100 %
- Start:** ☐ Immediately ☒ Date 11/12/2012 14:39
- End:** ☒ Indeterminate ☐ Date
- ☐ Allow the agent to pause recordings
- ☐ Allow the agent to stop recordings
- Buttons: OK, Cancel, Apply

Click on **Services** in the left-hand pane, enter **1** in the **Service ID** box and click the plus icon.

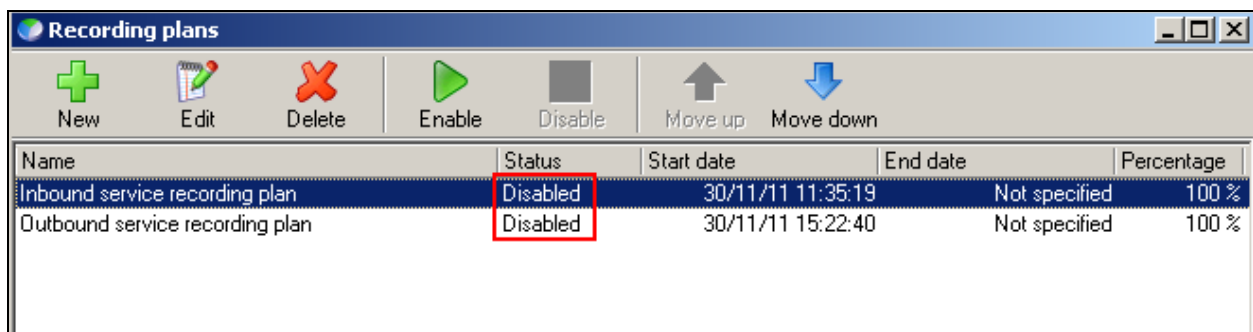
The screenshot shows the 'Plan Inbound service recording plan' window with the 'Services' tab selected. The left-hand pane shows 'General', 'Services', and 'Groups'. The main area contains the following fields and controls:

- Service id:** 1
- Buttons: +, X, Refresh
- Table with columns: Code, Name, Type
- Buttons: OK, Cancel, Apply

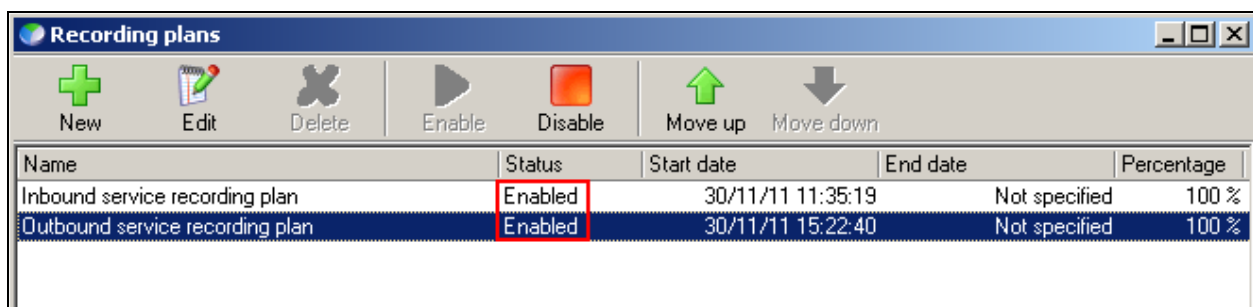
This will add the relevant configured service to the recording plan, in this case **INBOUND SERVICE**. Click **OK** when done. Repeat as necessary for additional recording plans.



The screen below will be displayed, summarizing the added recording plans. Note that the status shows **Disabled**.



Select each one in turn and click **Enable**, the status will now appear as **Enabled**.

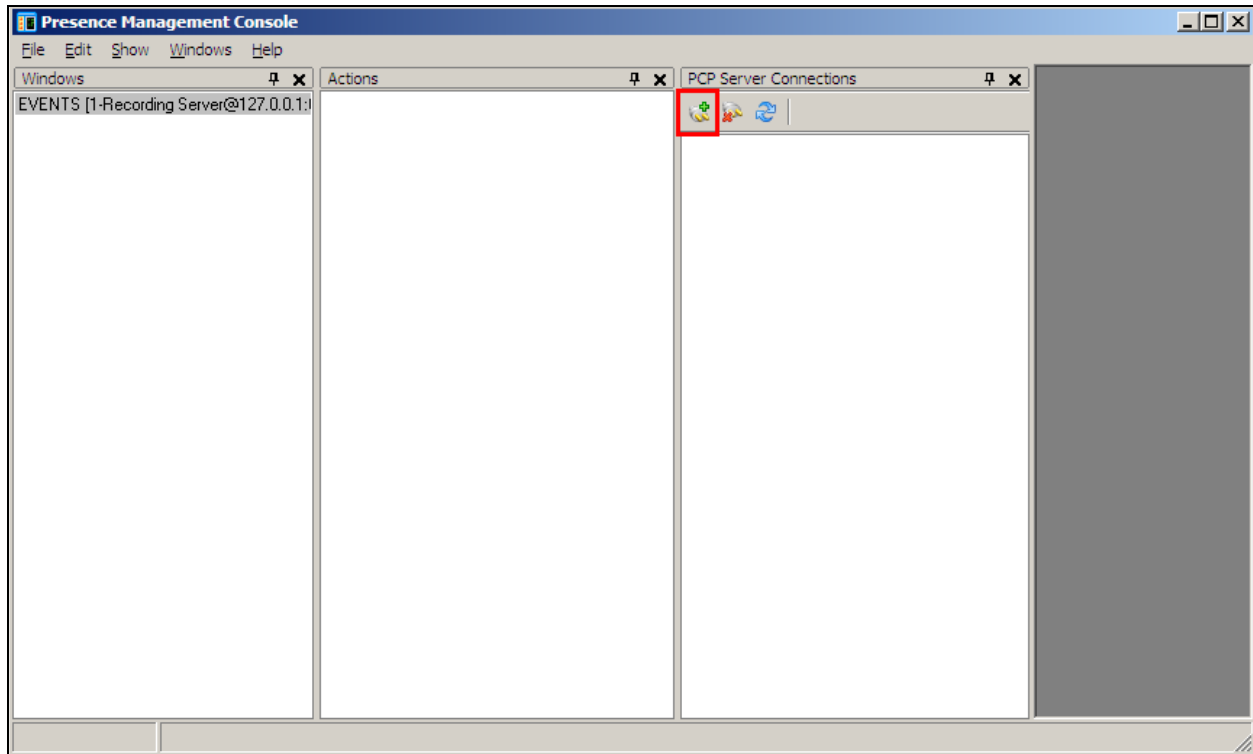


Calls that are placed via either of these Services will be recorded according to the recording plan configured above.

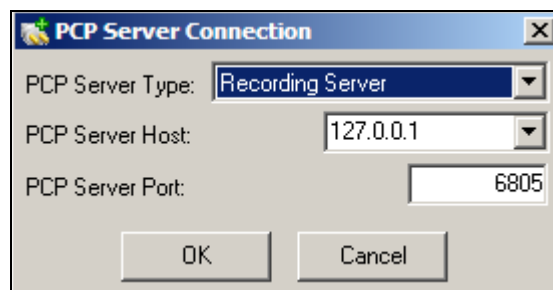
7.3. Add Avaya Aura® Communication Manager Stations to be recorded

If the **Integrated with Presence Server** box is not ticked in Section 7.1 then each station that is to be recorded must be added. In the example below extensions 2000 and 2001 are added to be recorded by Presence Recording.

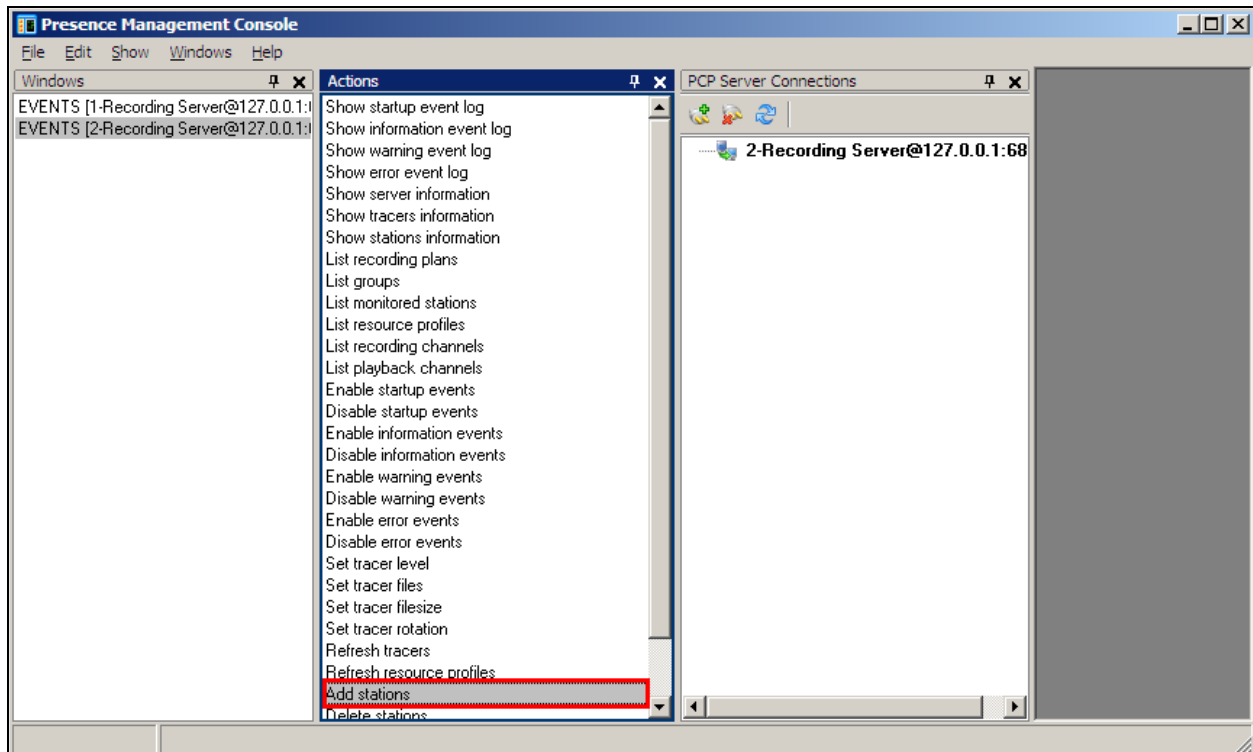
From the Presence folder double click on **pmconsole.exe** (not shown). The following window is opened, click on the connect icon as shown below.



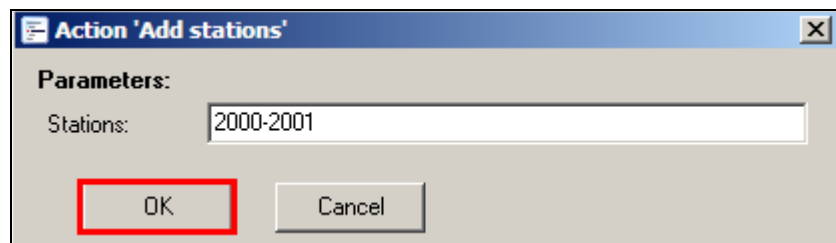
Select Recording Server from the drop down box **PCP Server Type**, ensure that the **Host** is set to the localhost **127.0.0.1** and the **Port** is set to **6805**.



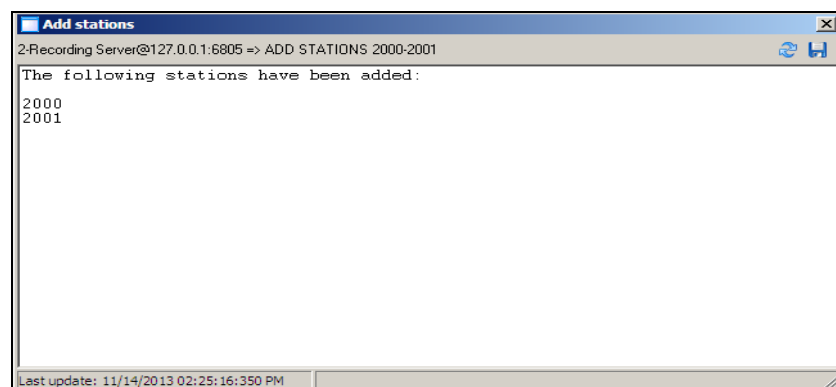
From the middle window select **Add Stations**.



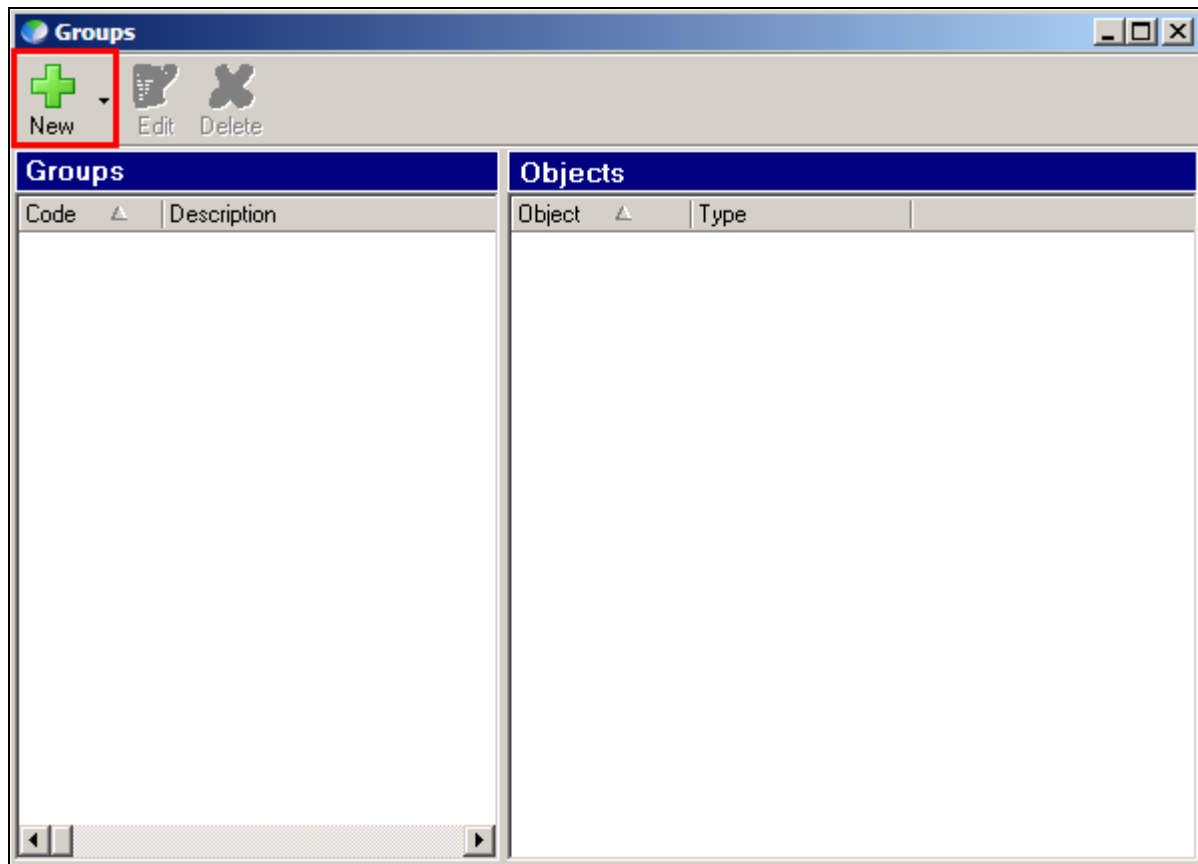
Enter the stations to be recorded and click OK when finished.



The following screen appears showing the stations are added.



Open the Presence Recording Supervisor (precsup.exe) (not shown). Navigate to **Recordings**→**Groups** (not shown) and click on **New** in the window that appears.



Enter the details for the new group. Note any number is used for code. Click on **OK** when finished.

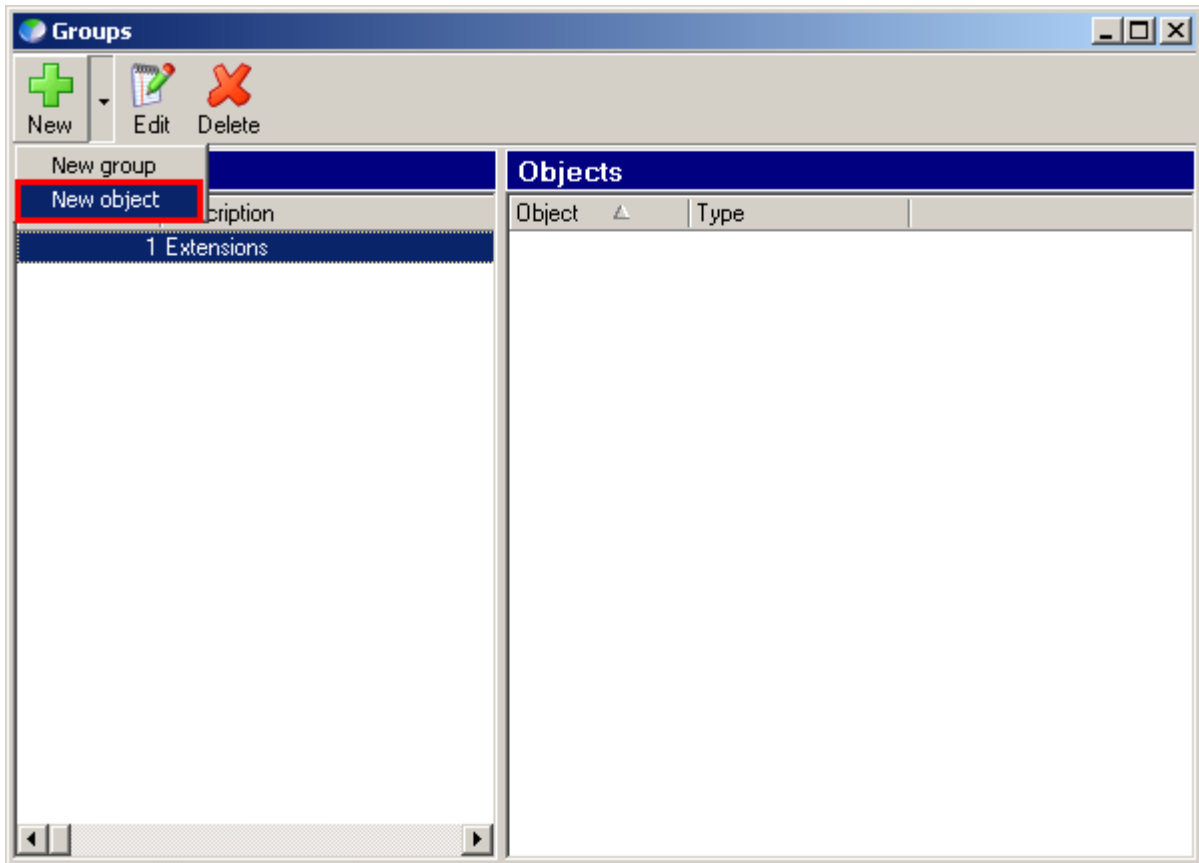
New group

Code: 1

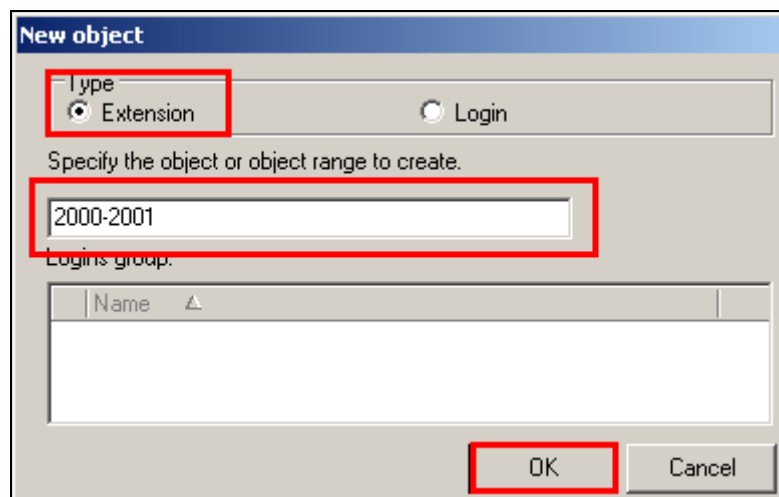
Description: Extensions

OK Cancel

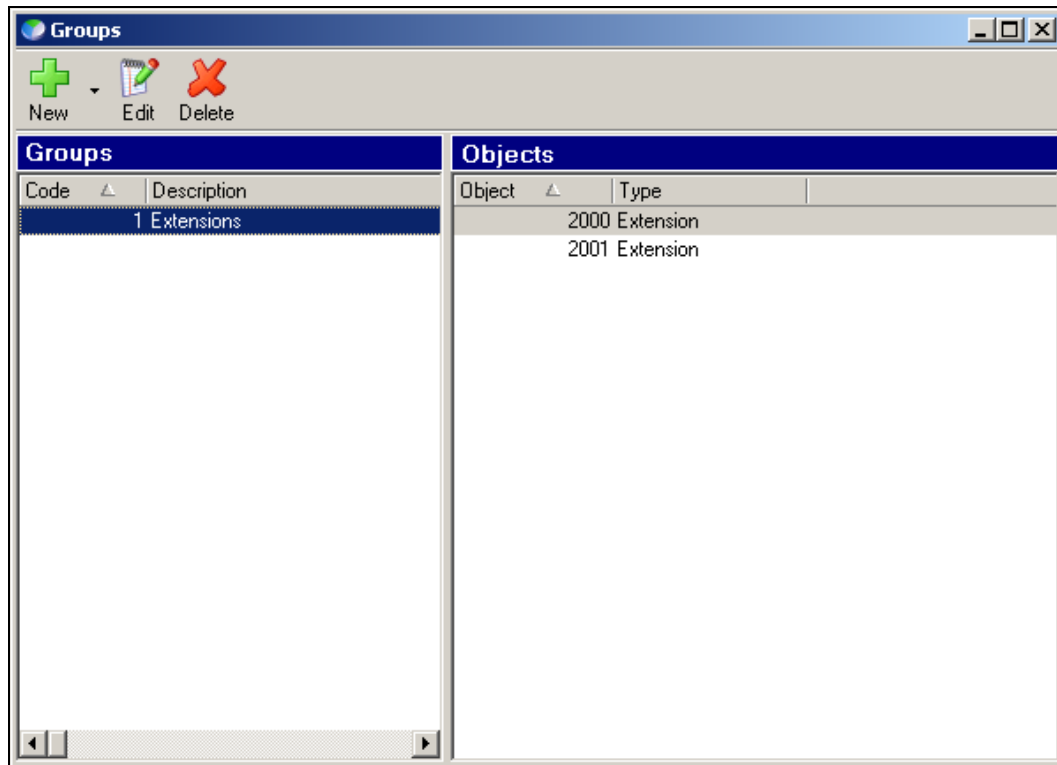
Click on **New** (drop-down box) and select **New object**.



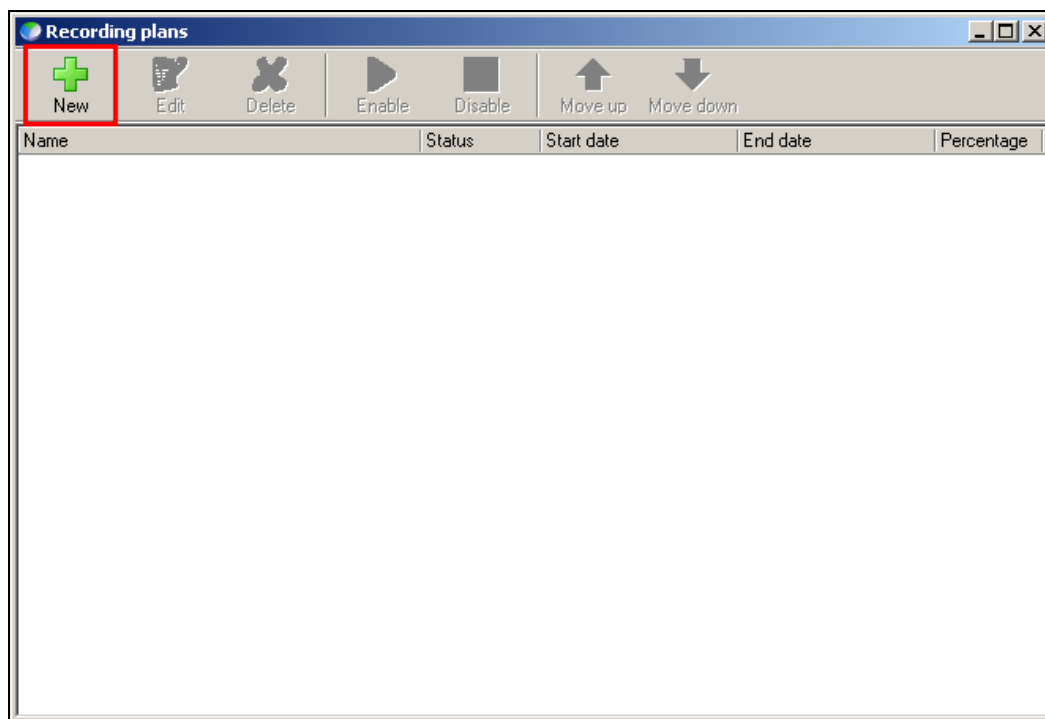
Select **Extension** as the **Type** and the extensions to be added. Click on **OK** once done.



Once **OK** is clicked above the following screen shows the added stations.



Navigate to **Recordings**→**plans** (not shown) and click on **New** in the window that appears.



Enter a **Name**, the **Resource profile** is pre-selected, **Percentage to record** is set to **100%**. **Start** and **End** is set to **Immediately** and **Indeterminate** respectively. Click on **OK** once done.

The screenshot shows the 'New recording plan' dialog box with the 'General' tab selected. The left sidebar lists 'General', 'Services', and 'Groups'. The main area contains the following fields and options:

- Name:** Recording extensions
- Resource profile:** General (dropdown menu)
- Percentage to record:** 100 %
- Start:** ☒ Immediately ☐ Date
- End:** ☒ Indeterminate ☐ Date
- ☐ Allow the agent to pause recordings
- ☐ Allow the agent to stop recordings

Buttons at the bottom: OK, Cancel, Apply.

On the **Groups** window click on the Search icon on the right and select the group code to be recorded. Select the group created above (not shown) and click on OK.

The screenshot shows the 'New recording plan' dialog box with the 'Groups' tab selected. The left sidebar lists 'General', 'Services', and 'Groups'. The main area contains the following fields and options:

- Group code:** (empty text box)
- Buttons: +, -, and a search icon (magnifying glass) which is highlighted with a red box.
- Table with columns: Code, Description

Buttons at the bottom: OK, Cancel, Apply.

8. Verification Steps

This section provides the tests that can be performed to verify correct configuration of the Avaya and Presence Technology solution.

8.1. Verify Avaya Aura® Communication Manager CTI Service State

The following steps can validate that the communication between Communication Manager and AES is functioning correctly. Check the AESVCS link status with AES by using the command **status aesvcs cti-link**. Verify the **Service State** of the CTI link is **established**.

status aesvcs cti-link						
AE SERVICES CTI LINK STATUS						
CTI Link	Version	Mnt Busy	AE Services Server	Service State	Msgs Sent	Msgs Rcvd
1	4	no	aes63vmpg	established	18	18

8.2. Verify TSAPI Link and DMCC

8.2.1. Verify TSAPI Link

On the AES Management Console verify the status of the TSAPI link by selecting **Status** → **Status and Control** → **TSAPI Service Summary** to display the **TSAPI Link Details** screen. Verify the status of the TSAPI link by checking that the **Status** is **Talking** and the **State** is **Online**.

AVAYA

Application Enablement Services
Management Console

Welcome: User craft
Last login: Fri Jan 11 14:46:18 2013 from 10.10.16.62
Number of prior failed login attempts: 1
HostName/IP: aes62vmpg.devconnect.local/10.10.40.
Server Offer Type: SWONLY
SW Version: r6-2-0-18-0
Server Date and Time: Fri Jan 11 14:52:47 UTC 2013

Status | Status and Control | TSAPI Service Summary

Home | Help | Log

AE Services

Communication Manager Interface

Licensing

Maintenance

Networking

Security

Status

Alarm Viewer

Logs

Status and Control

CVLAN Service Summary

DLG Services Summary

DMCC Service Summary

Switch Conn Summary

TSAPI Link Details

☐ Enable page refresh every 60 seconds

	Link	Switch Name	Switch CTI Link ID	Status	Since	State	Switch Version	Associations	Msgs to Switch	Msgs from Switch	Msgs Period
	1	CM62VMPG	1	Talking	Fri Jan 11 14:52:07 2013	Online	16	0	8	7	30

For service-wide information, choose one of the following:

8.2.2. Verify Avaya Aura® Application Enablement Services DMCC Service

The following steps are carried out on AES to validate that the communication link between AES and the Presence Recording server is functioning correctly. Verify the status of the DMCC service by selecting **Status** → **Status and Control** → **DMCC Service Summary**. The **DMCC Service Summary – Session Summary** screen is displayed as shown below. It shows a connection to the Presence Recording server, IP address **192.168.50.154**. The **Application** is shown as **precserver.exe**, and the **Far-end Identifier** is given as the IP address **192.168.50.154** as expected. The **User** is shown as the user created for the CTI user for Presence Server, in this case **Presenceco**.

AVAYA

Application Enablement Services
Management Console

Number of prior failed login attempts: 0
HostName/IP: aes62vmpg.devconnect.local/10.10.40.10
Server Offer Type: SWONLY
SW Version: r6-2-0-18-0
Server Date and Time: Mon Mar 11 15:47:09 UTC 2013

Status | Status and Control | DMCC Service Summary

Home | Help | Logout

AE Services

Communication Manager Interface

Licensing

Maintenance

Networking

Security

Status

Alarm Viewer

Logs

Status and Control

CVLAN Service Summary

DLG Services Summary

DMCC Service Summary

Switch Conn Summary

TSAPI Service Summary

User Management

Utilities

Help

DMCC Service Summary - Session Summary

☐ Enable page refresh every 60 seconds

Session Summary [Device Summary](#)
Generated on Fri Feb 10 10:45:27 GMT 2012
Service Uptime: 10 days, 18 hours 14 minutes
Number of Active Sessions: 1
Number of Sessions Created Since Service Boot: 7
Number of Existing Devices: 3
Number of Devices Created Since Service Boot: 21

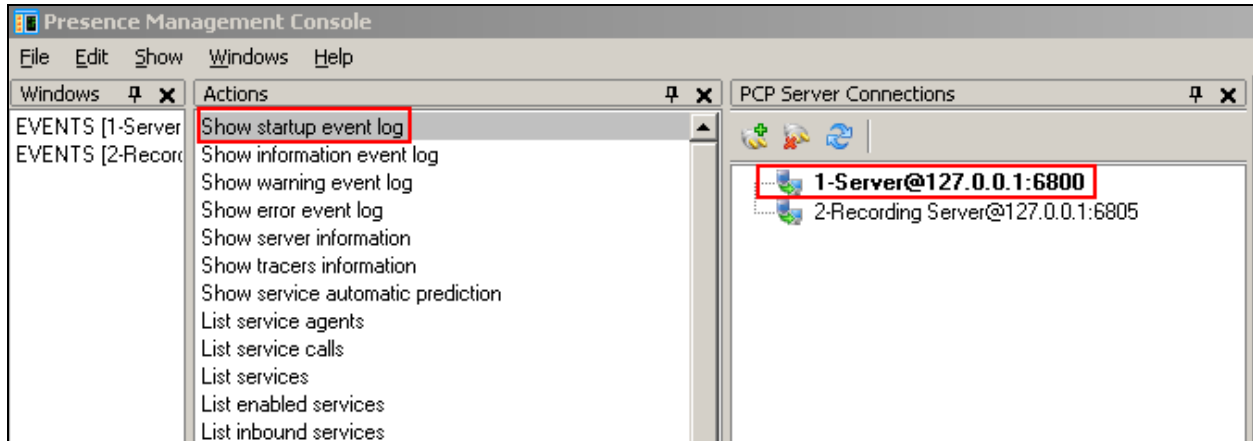
	Session ID	User	Application	Far-end Identifier	Connection Type	# of Associated Devices
<input type="checkbox"/>	B3D574CE7D7ABFCB3 3F6BE32A9D860A8-6	Presenceco	precserver.exe	192.168.50.154	XML Unencrypted	3

Terminate Sessions Show Terminated Sessions

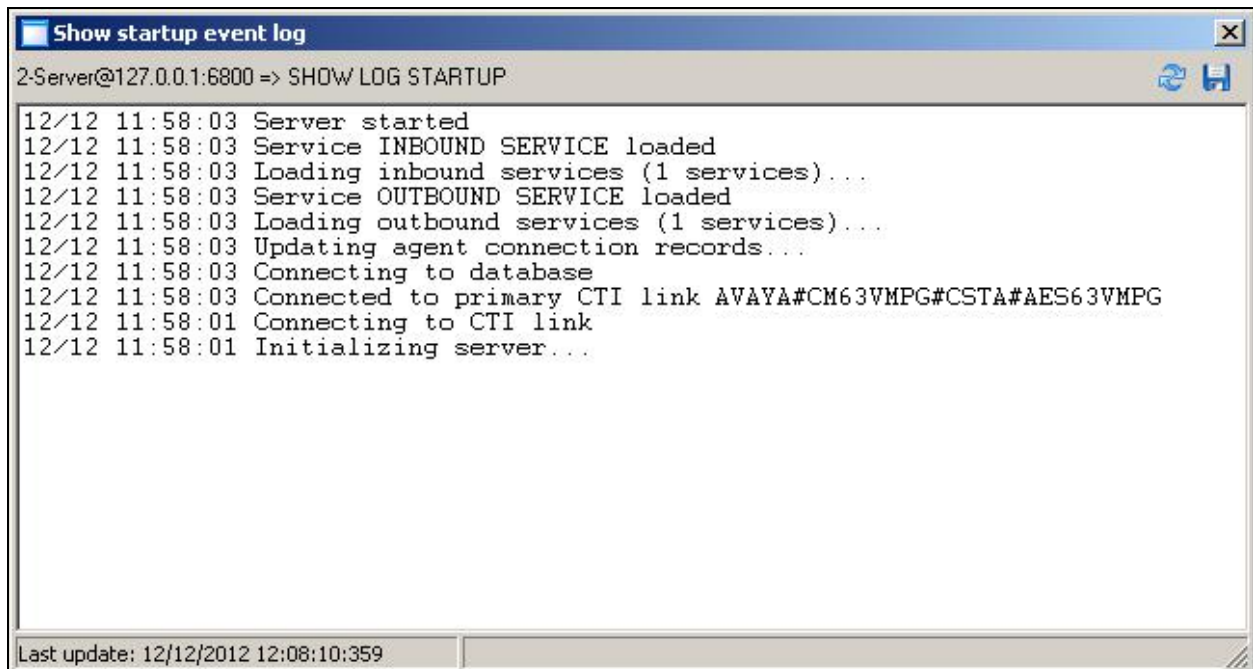
Item 1-1 of 1

8.3. Verify Presence Suite CTI Connection

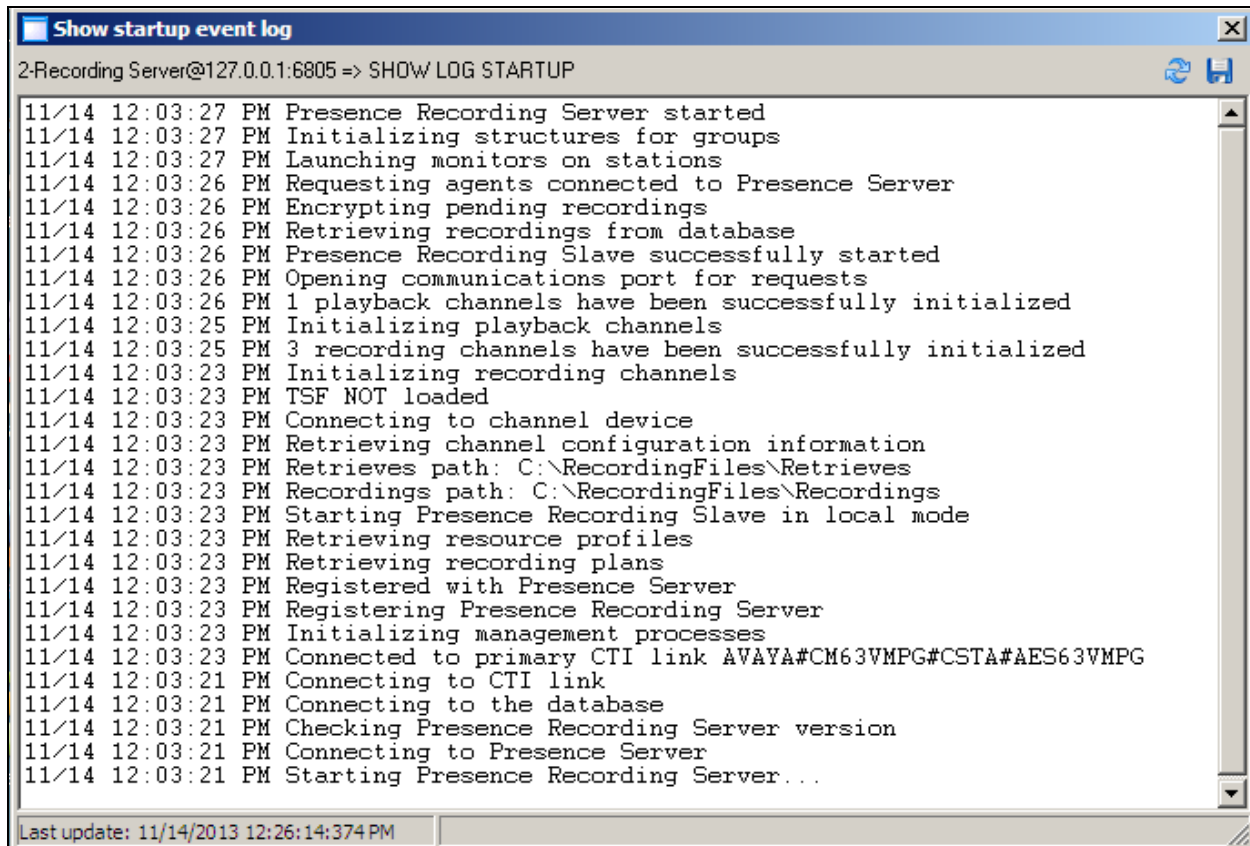
One of the available methods to confirm correct startup is a startup log which can be accessed from Presence Management Console. Navigate to **C: → Presence → pmconsole.exe** (not shown). A startup log commences when the Presence Server is trying to load and connect to AES. Click on the item named **Server@127.0.0.1:6800** in the **PCP Server Connections** pane of the Management Console. To open the startup event log, double click **Show startup event log** in the **Actions** pane.



Verify successful CTI connection and service startup.



Repeat the above for the item named **Recording Server@127.0.0.1:6805**.



```
Show startup event log
2-Recording Server@127.0.0.1:6805 => SHOW LOG STARTUP

11/14 12:03:27 PM Presence Recording Server started
11/14 12:03:27 PM Initializing structures for groups
11/14 12:03:27 PM Launching monitors on stations
11/14 12:03:26 PM Requesting agents connected to Presence Server
11/14 12:03:26 PM Encrypting pending recordings
11/14 12:03:26 PM Retrieving recordings from database
11/14 12:03:26 PM Presence Recording Slave successfully started
11/14 12:03:26 PM Opening communications port for requests
11/14 12:03:26 PM 1 playback channels have been successfully initialized
11/14 12:03:25 PM Initializing playback channels
11/14 12:03:25 PM 3 recording channels have been successfully initialized
11/14 12:03:23 PM Initializing recording channels
11/14 12:03:23 PM TSF NOT loaded
11/14 12:03:23 PM Connecting to channel device
11/14 12:03:23 PM Retrieving channel configuration information
11/14 12:03:23 PM Retrieves path: C:\RecordingFiles\Retrieves
11/14 12:03:23 PM Recordings path: C:\RecordingFiles\Recordings
11/14 12:03:23 PM Starting Presence Recording Slave in local mode
11/14 12:03:23 PM Retrieving resource profiles
11/14 12:03:23 PM Retrieving recording plans
11/14 12:03:23 PM Registered with Presence Server
11/14 12:03:23 PM Registering Presence Recording Server
11/14 12:03:23 PM Initializing management processes
11/14 12:03:23 PM Connected to primary CTI link AVAYA#CM63VMPPG#CSTA#AES63VMPPG
11/14 12:03:21 PM Connecting to CTI link
11/14 12:03:21 PM Connecting to the database
11/14 12:03:21 PM Checking Presence Recording Server version
11/14 12:03:21 PM Connecting to Presence Server
11/14 12:03:21 PM Starting Presence Recording Server...

Last update: 11/14/2013 12:26:14:374 PM
```

8.4. Verify Presence Recording Capture and Playback

Using Presence Supervisor, click **Recordings** → **Play**, visually verify correct recording detail as shown below.

Presence Supervisor - [Recording playback]

Monitors
Outbound
Inbound
Agents
Internet
Recordings
Groups
Plans
Play
Reports

Queries
Description: My query

Recordings for query My query

Audio	ID	Date	Service	Group id	Extension	Agent	Duration	Total duration	Phone	Call type	Record id	Attached data	Type
	4	11/12/12 14:34:55	200	0	2011	4400	0:00:10	0:00:11	89111	I	6201		On de
	5	11/12/12 14:37:57	200	0	2011	4400	0:02:10	0:02:10	89111	I	6202		Reco
	6	11/12/12 14:39:50	200	0	2013	4401	0:00:16	0:00:17	89112	I	6204		Reco
	7	11/12/12 14:43:02	200	0	2011	4400	0:00:15	0:00:16	89111	I	6205		Reco
	8	11/12/12 14:44:47	200	0	2011	4400	0:00:26	0:00:27	89111	I	6208		Reco
	9	11/12/12 14:45:49	200	0	2011	4400	0:00:23	0:00:24	89111	I	6209		Reco
	10	11/12/12 14:46:06	200	0	2013	4401	0:00:19	0:00:19	2011	I	6210		Reco
	12	11/12/12 14:48:16	200	0	2013	4401	0:00:15	0:00:15	89111	I	6211		Reco
	13	11/12/12 14:48:42	200	0	2011	4400	0:00:08	0:00:09	89111	I	6212		Reco
	14	11/12/12 14:50:06	200	0	2011	4400	0:00:28	0:00:29	89111	I	6213		Reco
	15	11/12/12 14:50:27	200	0	2011	4400	0:00:07	0:00:08	89112	O	6213		Reco
	16	11/12/12 14:52:36	200	0	2011	4400	0:00:11	0:00:11	89111	I	6214		Reco
	17	11/12/12 14:54:19	200	0	2011	4400	0:00:41	0:00:42	89111	I	6215		Reco
	18	11/12/12 14:54:34	200	0	2011	4400	0:00:25	0:00:26	4401	O	6215		Reco
	20	11/12/12 14:57:04	200	0	2013	4401	0:00:37	0:00:38	89111	I	6217		Reco
	21	11/12/12 14:57:33	200	0	2011	4400	0:00:08	0:00:08	2013	I	6218		Reco
	23	11/12/12 14:59:00	200	0	2011	4400	0:00:32	0:00:32	89111	I	6219		Reco
	24	11/12/12 14:59:14	200	0	2011	4400	0:00:18	0:00:19	89112	O	6219		Reco
	25	11/12/12 15:00:47	200	0	2011	4400	0:00:34	0:00:35	89111	I	6220		Reco
	26	11/12/12 15:01:09	200	0	2011	4400	0:00:13	0:00:13	89112	O	6220		Reco
	27	11/12/12 15:02:30	200	0	2011	4400	0:00:21	0:00:21	89111	I	6221		Reco
	28	11/12/12 15:31:26	100	0	2011	4400	0:00:15	0:00:24	89111	O	6211		Reco
	29	11/12/12 15:35:51	100	0	2013	4401	0:00:20	0:00:29	89111	O	6213		Reco
	30	11/12/12 15:36:00	100	0	2011	4400	0:00:19	0:00:19	89112	O	6214		Reco
	31	11/12/12 15:44:28	200	0	2011	4400	0:00:07	0:00:08	89111	I	6222		On de
	32	11/12/12 15:45:42	200	0	2011	4400	0:00:28	0:00:29	89111	I	6223		On de
	33	11/12/12 15:45:54	200	0	2013	4401	0:00:10	0:00:10	89112	I	6224		On de
	34	11/12/12 15:49:27	200	0	2011	4400	0:00:13	0:00:13	89111	I	6225		Reco
	35	11/12/12 15:58:05		1	2014	0	0:00:10	0:00:11	89111	I	0		Reco
	36	11/12/12 16:03:37	200	0	2011	4400	0:00:26	0:00:26	89111	I	6230		Reco
	37	11/12/12 16:10:27	200	0	2013	4401	0:00:37	0:00:37	89111	I	6231		On de
	38	11/12/12 16:11:13	200	0	2011	4400	0:00:06	0:00:07	2013	I	6232		On de
	39	11/12/12 16:13:43	200	0	2011	4400	0:00:07	0:00:08	89111	I	6233		On de

No. of recordings: 57 Current pos.: 1 Last update: 12/12/2012 12:17:24

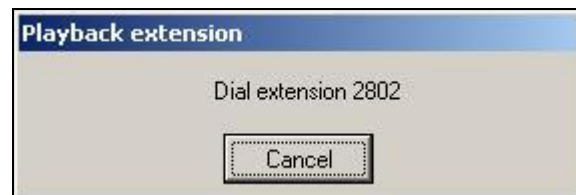
Related recordings

Audio	ID	Date	Service	Group id	Extension	Agent	Duration	Total duration	Phone	Call type	Record id	Attached data	Type
-------	----	------	---------	----------	-----------	-------	----------	----------------	-------	-----------	-----------	---------------	------

Intelligent Routing

Server: PRESENCE_SERVER

Double click on the recording to be played, the pop up shown below will be displayed with the prompt to dial a playback extension.



Dial the number shown and manually confirm accurate, clear and audible call recording playback. The screen below will be displayed allowing playback control.



9. Conclusion

These Application Notes describe the configuration steps required for Presence Technology Presence Recording R10.0 to successfully interoperate with Avaya Aura® Communication Manager R6.3 using Avaya Aura® Application Enablement Services R6.3. All feature functionality and serviceability test cases were completed successfully as outlined in **Section 2.2**.

10. Additional References

This section references the Avaya and Presence Suite product documentation that are relevant to these Application Notes.

Product documentation for Avaya products may be found at <http://support.avaya.com>.

- [1] *Administering Avaya Aura® Communication Manager*, Document ID 03-300509
- [2] *Avaya Aura® Communication Manager Feature Description and Implementation*, Document ID 555-245-205
- [3] *Avaya Aura® Application Enablement Services Administration and Maintenance Guide Release 6.3*

The following documentation is available on request from Presence: www.presenceco.com

- [4] *ACD Sys Presence Administrator Manual Presence Suite*, V10.0
- [5] *Presence Installation Guides Presence Software*, V10.0
- [6] *PBX/ACD Requirements Presence Software*, V10.0

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